

IN THE SPECIFICATION

Please replace paragraph [0018] with the following:

[0018] Referring to the drawings in general, it will be understood that the illustrations are for the purpose of describing different embodiments of the invention, and are not intended to limit the invention thereto. Turning to Figure 1, a luminescent nanomaterial of the present invention is shown. Figure 1 is a transmission electron microscopy (TEM) image of a lanthanum phosphate doped with cerium and terbium. The luminescent nanomaterial 100 comprises a plurality of nanoparticles. Each of the nanoparticles has a spheroidal morphology 110. The plurality of nanoparticles comprises at least one lanthanide group metal phosphate and at least one lanthanum series dopant. The luminescent nanomaterial 100 comprises at least one of a spheroidal morphology 110, an elongated platelet morphology 120, ~~and a rod-like morphology 130~~, or combinations thereof. Each of the plurality of nanoparticles has at least one of the three dimension in a range from about 5 nm to about 500 nm. In one embodiment, each of the plurality of nanoparticles has at least one dimension in a range from about 10 nm to about 200 nm. In a preferred embodiment, each of the plurality of nanoparticles has at least one dimension in a range from about 50 nm to about 100 nm. Figure 2 is a TEM image of lanthanum phosphate doped with cerium and terbium nanoparticles having an elongated platelet morphology 120. Figure 3 is a TEM image of gadolinium lanthanum phosphate doped with cerium and terbium nanoparticles having a rod-like morphology 130.

Also, please replace paragraph [0028] with the following:

In step 210, a phosphate source is added to the homogenized precursor solution of step 200 to form the lanthanide group metal phosphate. Non-limiting examples of the phosphate source include di-ammonium hydrogen phosphate, phosphoric acid, and boron phosphate. Depending on the pH, the homogenized precursor solution is either clear,

translucent, or milky. A relationship between the morphology of the luminescent nanomaterial 100 and the pH of the homogenized precursor solution is observed. A spheroidal morphology 110 is achieved for pH values of less than 1.0. A combination of a spheroidal morphology 110 and an elongated platelet morphology 120 is obtained for pH values in a range from about 1.0 to about 2.5. An elongated platelet morphology 120 is observed for pH values in a range from about 2.5 to about 3.5. In addition, fuel is added to the homogenized precursor solution to provide the source for ignition of the homogenized precursor solution. In some embodiments, the fuel is a carbon source. Non-limiting examples of fuel include glycine, urea, and hydrazine.